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ABSTRACT

The career maturity construct has been the subject of much research since its introduction into the literature in 1955. Studies have investigated various correlates of the career maturity construct. The more recurrent research focuses can be grouped into the following clusters: age or grade level differences; race, ethnic, and cultural differences; locus of control (LOC) and socioeconomic status (SES) differences; sex or gender differences; and work salience. Research indicates career maturity is better differentiated by educational level than age and lends support to the construct's developmental nature and supports the belief that career maturity development differs by gender. Studies have failed to find a significant relationship between SES and career maturity, but evidence indicates SES may have an indirect effect. A commanding body of research has delineated both indirect and direct relationships between LOC and a wide spectrum of career-related variables, such as career decision, career commitment, career aspiration, work ethics and leisure, career exploration, and occupational information-seeking behavior--all integral to career development and career maturity. Research on career development concerns of racial and ethnic groups should be interpreted cautiously because of the confounding of race, class, ethnic, and economic variables. Work-role salience has been conceptualized generally as an independent variable affecting various career issues including career maturity. (142 references) (YLB)

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Career maturity: A review of four decades of research

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ABSTRACT

This paper reviews 40 years of research using the career maturity construct since its inception into the literature in 1955. The construct has been described as being central to career development theory, the most commonly employed outcome measure in career counseling, and as being the most widely used career construct internationally. In addition to reviewing the more recurrent research correlates such as level of education, socioeconomic status, locus of control, and sex or gender differences, the relationships between career maturity and work salience and race, ethnic, and cultural differences are also discussed.

Career maturity: A review of four decades of research

Career maturity reflects an individual's readiness to make well-informed, age-appropriate career decisions and to shape his or her career carefully in the face of existing societal opportunities and constraints (King, 1989). As a construct, career maturity has been the subject of a myriad studies (Nevill & Super, 1988) and reviews (Crites, 1978; Osipow, 1983; Westbrook, 1984) since Super first introduced the term vocation maturity into the literature in 1955. It has become a well-established concept which is now central to many career counseling and education programs in schools and colleges (Herr & Cramer, 1984) and to many career development programs in business, industry, and government (Hall, 1984). Career maturity is also the most commonly employed outcome measure in career counseling (Spokane, 1991) and is widely used internationally. The last decade has seen the construct of career maturity studied in several countries: Austria (Seifert, 1987, 1991), Australia (Trebilco, 1984), Brazil (Japur & Jacquemin, 1989), Canada (Alvi & Khan, 1982, 1983), England (Magee & Pumfrey, 1986; India (Gupta, 1987); Israel (Fouad, 1988); Triger, Shelef, & Porat, 1983), Lebanon (Theodory, 1982), Nigeria (Achebe, 1975), South Africa (Pretorius, Heyns, & Broekman, 1991; Watson & Van Aarde, 1986), Portugal (Taviera, 1986), and Puerto Rico (Rodriques & Blocher, 1988).

Notwithstanding this, several studies have indicated that the career maturity construct is still in need of further explication (Nevill & Super, 1988; Super, 1990). Because the plethora of career maturity studies has not been conducted in a systematic way, disparate findings have confused rather than consolidated our understanding of its nature and influence and the role of structural and cultural factors in shaping individuals' vocational behavior (Fitzgerald & Betz, 1992). Much of this research has also been preoccupied with the career behavior and development of White middle-class college students (Bowman, 1988, Cheatham, 1990). Studies with other racial or cultural groups have tended to be etic or comparative studies with the White middle-class male norm providing the standard. Such comparative studies have been confounded by class and other variables (Brooks, 1984) and have led to vocational stereotyping (Smith, 1975).

Correlates of Career Maturity

Studies have investigated a variety of correlates of the career maturity construct. The more recurrent research foci can be grouped into the following clusters: age or grade level differences; race, ethnic, and cultural differences; locus of control and SES differences, and sex or gender differences. More recently, the relationship between career maturity and work salience has also come under increasing investigation.

Educational Level Differences in Career Maturity.

Consonant with the concept of career development is the assumption that career behavior changes systematically in relation to some index of time, usually chronological age or school grade level (Crites, 1974, Super, 1957). Although research focusing on the relationship between age as a correlate of career maturity has received extensive attention (Healy, O'Shea, & Crook, 1985; King, 1989; Srebalus, Marinelli, & Messing, 1982; Stern, Norman, & Zevon, 1991), several researchers have delineated that career maturity is better differentiated by educational level than age (Crites, 1974; Guthrie & Herman, 1982; Hall, 1963; Watson, 1984). This is due primarily to the influential role of the educational milieu in this maturational process with students being required by the educational system to make grade-related career decisions (Osipow, 1973; Gottfredson, 1981). Such findings offer support for the developmental nature of career behavior and point to the educational environment as the primary agent of that development (Watson, 1984).

Research focusing on grade level differences in career development, has been uniformly positive, indicating that scores on career maturity instruments increase monotonically with grade level in high school (e.g., Crites, 1965; Herr & Erderlen, 1976; Mintzer, 1976; Smith & Herr, 1972; Tilden, 1978). This lends empirical support to the developmental nature of the career

maturity construct. This positive relationship has also been established in cross-cultural research on high school students in Nigeria (Achebe, 1975), Israel (Fouad, 1988; Karayanni, 1981), India (Gupta, 1987) and South Africa (Watson, 1984), and in a study that compared Puerto Rican, African American, and White 9th to 12th graders (Dillard & Perrin, 1980).

In a study comparing the career maturity of college freshmen, senior, and graduate students, McCaffrey, Miller, and Winston (1984) found that more advanced career maturity was related to more advanced class levels. Freshmen were significantly different from seniors and graduate students in career maturity. Similarly, Naidoo (1993) found monotonic increase in scores of attitudinal career maturity for African-American college students from freshman to senior levels..

Sex Differences in Career Maturity

The salience of gender in the general development of adolescents has been well documented (e.g., Gilligan, 1982; Maccoby & Jacklin, 1987; Maccoby, 1991; Rice, 1981). In the wake of the women's movement and several seminal studies addressing the career development of women (Astin, 1984; Betz, 1989; Fitgerald & Crites, 1980; Hackett & Betz, 1981; Nevill, 1984), more attention has been devoted to research on sex differences in career behavior (Tittle, 1988). However, research relating sex differences to career maturity presents a disparate picture to the extent that

this research area has been described as being conflicting and inconsistent (Herr & Cramer, 1984) and as being less than adequate (Grotevant & Thorbecke, 1982).

Research findings relating sex to career maturity fall into three categories: findings indicating that females in high school score higher than males on career maturity inventories; findings that males are attitudinally more career mature; and those finding no differences between the sexes. Several studies have indicated that females are attitudinally more career mature than males (Marganoff, 1978; Neely & Johnston, 1981; Omvig & Thomas, 1977; Putnam & Hansen, 1972; Watson, 1984; Westbrook, 1984). This has been found cross-sectionally at various grade levels (Herr & Enderlein, 1976; Mintzer, 1976; Omvig & Thomas, 1977), longitudinally from the 8th through 12th grades (Crites, 1976), in cross-cultural studies (Currie, 1974; McNair & Brown, 1983; Watson & Van Aarde, 1986), and across SES strata (Putnan, Hosie, & Hansen, 1978). One study found African-American college women not only to be attitudinally more career mature but also more committed to the work role than their male peers (Naidoo, 1993). In addition, five studies at high school and college levels were identified in which females were also found to be more cognitively career mature than their male counterparts (Khan & Alvi, 1984; Lunneborg, 1978; Neely & Johnston, 1981; Nevill & Super, 1988; Super & Nevill, 1984).

In contrast, several studies have reported greater cognitive

career maturity differences favoring males (Achebe, 1975; Gupta, 1987; Watson, 1984) and greater attitudinal career maturity in males (Achebe, 1975; Gupta, 1987; Putnam & Hansen, 1972). Moreover, there is also an accumulation of recent studies that failed to find any significant sex difference in attitudinal career maturity (Fouad, 1988; Holland, 1981; Kelly & Colangelo, 1990; Laskin & Palmo, 1983; Super & Nevill, 1984; Westbrook, Sanford, & Donnelly, 1990), or reported sex and cognitive career maturity to be unrelated (Dorr & Lesser, 1980; Grotevant & Durrett, 1980; Thompson & Lindeman, 1984). In one study comparing the career maturity of college students, male and female students were found to have similar levels of career maturity at freshman, senior, and graduate levels respectively (McCaffrey et al., 1984). These findings suggest that among college students, similar career-related decisions are experienced by males and females.

A recent study by King (1989) which examined sex differences in a causal model of career maturity may shed some light on these contradictory findings. King examined whether sex differences existed in the way six independent variables (age, sex, parental aspirations, family cohesion, cultural participation, and LOC) affected career maturity. She established that while the basic causal patterns were similar for adolescent boys and girls, there were significant sex differences as well. For boys the single most important determinant of career maturity was their age whereas for girls, sense of family cohesion and an internal LOC were the main

determinants. The conclusions drawn from this study indicate that while the patterns of interaction among the six variables have more similarities than significant differences for the two sexes, the overall results support the belief that the development of career maturity differs for men and women (King, 1989).

Socio-economic Status and Career Maturity

Career theorists have long recognised social class as a primary determinant of career behavior. Super, for instance, first contended that an individual's "starting point is his father's socio-economic status; he climbs up the educational ladder at a speed fixed both by his psychological and social characteristics and by the resources provided by his family environment" (1969, p.2). He later proposed that an individual's career pattern, that is, the occupational level attained and the sequence, frequency, and duration of trial and stable jobs, is determined by the individual's socio-economic level and by the related opportunities to which he or she is exposed (Super, 1990). In her model, Gottfredson (1981), also, identified socio-economic background as a major factor in the progressive circumscription and compromise of career aspirations during self-concept development. Vondracek, Lerner, and Schulenberg (1986) regarded SES to be "one of the most powerful and consistent environmental predictors of one's occupational aspirations and attainments" (p.46). So potent is this influence that in a review of the literature, Schulenberg,

Vondracek, and Crouter (1984) asserted that the general pattern that emerged is that "SES begets SES" (p.131).

Notwithstanding these viewpoints, Super (1990) drew attention to several studies, including some of his own, that failed to find a significant relationship between SES and career maturity. Crites (1978) found negligible or very low correlation between attitudinal career maturity and the Warner Index of Social Characteristics. Similar results obtained by Jordaan and Heyde (1979) led them to conclude that SES appeared to be a relatively insignificant determinant of vocational maturity among young adolescents. Its role in the later years of high school is more marked, but even here, according to the Career Pattern Study findings, it accounted for a small proportion of the observed variance in vocational maturity. This conclusion supported earlier findings by Ansell (1970) of differences between middle- and lower-class youths in grades ten through twelve, although not in grades eight and nine. In two studies (Nevill & Super, 1988; Super & Nevill, 1984), the relation between SES and career maturity was examined in high school sophomores and in university students. The conclusions drawn from these studies are that SES may well affect self-concepts, but its effects on career maturity appear to be minimal (Super, 1990). In a study on African-American college students (Naidoo, 1993), no significant relationship between SES strata and career maturity was observed but, interestingly, students from the lowest SES stratum obtained higher career

maturity scores than those from any of the other SES strata.

In contrast, a body of research findings has accumulated confirming that socio-economic factors do exert an influence on career development (Cosby & Picou, 1973; Khan & Alvi, 1983; McNair & Brown, 1983; Neely & Johnston, 1981). Ansell and Hansen (1971) concluded that economic background and differences as manifested in the schools attended, played a greater role in the development of career maturity than did racial background. Holland (1981) found SES to be significantly correlated to attitudinal career maturity in 6th graders, among whom it was a better predictor of career maturity than sex, place of residence, age, or self-concept. The vital influence of SES on female career development was recognized by Rice (1981) who reviewed other research supporting this relationship. Research conducted by McLaughlin, Hunt, and Montgomery (1976) concluded that women's career perceptions, values, and aspirations conform to "long-prevailing patterns of differences based on socio-economic milieu" (p. 162). In a recent study, King (1989) found there was a tendency for SES to have a stronger effect on the career maturity of girls than of boys.

A study conducted by Rodriques and Blocher (1988) revealed that positive changes in career maturity and locus of control can be facilitated in academically and economically disadvantaged groups by the use of carefully designed career interventions. Evidence supporting relationships between career maturity and SES

and cultural factors was also obtained in studies conducted by Alomari (1978), Karayanni (1981), and Watson and Van Aarde (1986). In a causal model of career maturity, Naidoo (1993) found the influence of SES on career maturity to be mediated by how salient the work role was perceived to be for African-American college students. There was evidence that SES may have a greater indirect effect on career maturity. Hence, further multivariate research is necessary to examine these interrelationships.

Locus of Control and Career Maturity

Psychological theories of career development such as Super's assume that individuals potentially have a moderate degree of destiny control in the process of career choice, despite external obstacles and conditions of inequity (Hotchkiss & Borow, 1990). By contrast, situational or sociological theories of career development have generally viewed work and career choice as embedded in a broad system of social stratification. They place more emphasis on the role of structural (environmental) factors that condition career choices and decisions (Herr & Cramer, 1988). The locus of control (LOC) construct has been operationally incorporated explicitly into at least one psychological theory of career development. For example, Knefelkamp and Slepitza's (1978) cognitive developmental model described the task of the relativism stage as shifting from a predominantly external to a predominantly internal perspective. They also identified LOC as the internal-

external sources that individuals use to define themselves and their environment. Several other theorists have alluded to its effect on individual motivation, albeit less explicitly (Watson, 1984). Super and Bowlsbey (1981) referred to LOC as "a sense of autonomy" or of "internal focus of control" prerequisite to the planning, exploration, and acquisition of career skills and information. In the Career Pattern Study (1983), Super made reference to it under the guise of "acceptance of responsibility". Gardner (1981) intimated that it would be logical to hypothesize a relationship between the concepts of career maturity and LOC, stating that "it seems clear that the person who is more career mature would axiomatically be more internal on locus of control" (p.20).

A commanding body of research has, however, delineated both indirect and direct relationships between LOC and a wide spectrum of career related variables. Researchers have found that LOC is significantly related to career decision (Hartman, Fiqua, & Blum, 1985; Salomone, 1982; Taylor, 1982; Van Matre & Cooper, 1984), career commitment (Bishop & Soloman, 1989), career aspiration (Halpin, Halpin, & Whiddon, 1985), work ethics and leisure (Kleiber, & Crandall, 1981), career exploration (Thornton, 1978; Stumpf & Colarelli, 1980), and occupational information-seeking behavior (Bernardelli, De Stefano, & Dumont, 1983; Lokan, Boss, & Patsula, 1982). All these behaviors are integral to career development and career maturity.

In addition, LOC has been associated with sex (Bishop & Soloman, 1989; King, 1989; Wilson, 1975) and SES differences (Gardner, 1981) in career maturity. Bishop and Simon (1989) tested the hypothesis that older graduate students would exhibit a more internal LOC than younger graduate students in both sexes. Younger women and men showed no difference in LOC, but older men evidenced a more internal LOC and women a more external LOC. These results may reflect older women's perception of a limited ability to control external variables associated with their career development. Wiley, Crittenden, and Birg (1979) attributed their finding to the fact that women make more external attributions than men to their lower status in society and their resultant diminished control over their destinies. Similarly, lower SES individuals generally perceive their future as being externally conditioned and, consequently, are "rooted in the present and are indifferent to the future" (Sarbin, 1970, p.33).

Cross-cultural investigation of LOC has drawn mixed findings. This may be due to such research being often confounded by socio-economic factors. Nevertheless, cross-cultural support for the relationship between career maturity and LOC has been established for Puerto Rican women (Rodriques & Blocher, 1988), Canadian adolescent women from rural schools (Young, 1984), Figian adolescents (Kishor, 1981), South African high school students (Watson, 1984), and Nigerian college students (Gardner, 1981). There has also been evidence that LOC mediates the influences of

sex and SES on career maturity (Lokan et al., 1982; Thomas & Carpenter, 1976).

Race and Cultural Differences in Career Maturity

Sociological as well as psychological research has demonstrated that socio-cultural differences in career behavior exist (Zunker, 1981). Indeed, career development appears so interwoven with social, cultural, and economic factors that Osipow (1983) regarded these to be prerequisite variables in career research. There has, however, been a variety of criticisms levelled at the inadequacy of career theory to explain the career development of racial and ethnic minorities. These criticisms can be grouped into three recurring themes: the theories are based on erroneous assumptions, particular theoretical concepts are not applicable, and crucial variables are omitted from the theories. Underlying all of these criticisms is the question of whether the career development process and outcomes of minority groups are different from those of the majority group (Brooks, 1990).

Two specific problems have been identified with the research in this area. First, much of the research has been conducted with a race differences approach. This paradigm presupposes that the "proper approach to the study of minority people is to compare them to whites" (Korchin, 1980, p.263). Frequently, the variables are conceptualized, measured, and interpreted from a White middle-class perspective. What is more problematic about this approach is

that little is learned about the ethnic group, except that its members are unlike White Americans in some respects. Yet the causes of any differences found are implicitly attributed to race (Azibo, 1988). A second problem with research in this area is that race has often been confounded with social class (Osipow, 1975; Smith, 1975). For example, a recurring finding is that African Americans are less career mature than Whites. Closer scrutiny of this area of research reveals that lower-class African Americans are being consistently compared with White middle-class youth (Brooks, 1990). To disentangle the effect of race from class, emic studies are needed comparing lower-class African Americans with middle-class African Americans (Ponterotto & Casas, 1991; Smith, 1975; Super, 1990).

Research on career development concerns of racial and ethnic groups should be interpreted cautiously because of the confounding of race, class, ethnic, and economic variables (Brooks, 1990; Ponterotto & Casas, 1991). In a recent study investigating the validity of the CMI Attitude Scale among Black and White high school students, Westbrook and Sanford (1991) recommended that researchers carry out separate analyses of career maturity scores in cross-cultural studies because of possible mean scores difference, differences in reliability coefficients, and differences in validity coefficients. No SES data was provided in this study. In an earlier study, Westbrook et al. (1990) failed to find any significant race and sex differences in the career

maturity of African American and White 9th graders, and found that scholastic aptitude and career maturity did not correlate highly with each other (Westbrook, Sanford, Merwin, & Fleenor, 1987).

A study by Lee (1984) compared rural Native American, White, and African American high school students to predict the effects of ethnicity, sex, parental influence, self-concept, and degree of certainty on career maturity. The results suggested that factors related to predicting aspects of career maturity may differ for White and minority youth. Parental influence and self-concept interacted with ethnicity in the prediction of career maturity attitude scores. Lee concluded that parental influence has a greater impact on the career maturity attitudes of African American and Native American students than on that of White students.

Assessing the relationship of race, sex, and SES on the career maturity and occupational aspirations and expectations of 10th grade students, McNair and Brown (1983) observed that Whites scored higher on career maturity than the African American students and that females were more career mature than males. Moreover, self-concept added significantly to the prediction of career maturity for White males only. Parental influence was the variable that added the greatest degree of predictability in the analyses. A study by Dillard and Campbell (1981) involving Puerto Rican, White, and African American high school students lends only partial support to the assumption that parental influence is a

crucial factor in the career maturity development of adolescents. A further finding was that African American mothers contributed more strongly to their children's career development than did African American fathers. An earlier study conducted by Dillard and Perrin (1980) to determine the influence of SES, grade level, family intactness, and ethnic origin in the same three groups of high school students, yielded interesting results. A significant sex-by-ethnic group interaction was discovered for career aspiration: the mean career aspiration score for White males was significantly lower than the mean for African Americans. Data suggested that attitudinal career maturity increased with grade level. After controlling for ethnicity and sex, SES (rather than grade level or family intactness) most accurately predicted career expectations.

Examining Super's proposition of career choice being the implementation of the self-concept, Pound (1978) studied the relationship between self-concept, sex, and race on career maturity. Multiple regression analyses revealed the following results: (a) An overall significant relationship was obtained between self-concept and career maturity scores; (b) Self-concept scores failed to predict career maturity for either sex or the White and African American groups; (c) No self-concept subscale scores improved on the simple correlation prediction of career maturity for any subgroup, except the Social Self for African American males; and (d) Self-concept predictors related to career

maturity differed by sex and racial subgroup. A similar study by Lawrence and Brown (1976) with 12th graders suggested that when predicting career maturity as measured by the CMI, a separate equation utilizing different predictors, depending on the race and sex of the subjects, should be considered. SES and self-concept were also found to have a differential effect upon career maturity.

The relationship between reference group perspectives and the career maturity of lower SES African American youth was researched by Smith (1976). Students who evidenced an orientation toward middle-class reference group perspectives obtained higher career maturity scores than those who subscribed to perspectives traditionally associated with the lower class. Sex and family background were not related to reference group perspectives nor to career maturity. Post-high school plans (i.e., either work- or college-bound) and views of the opportunity structure in the USA were related to both reference group perspectives and career maturity scores.

As Greenhaus and Parasuraman (1986, p.127) observed...there is a critical need for theory building and empirical research on the career development of diverse cultural groups." Furthermore, Super (1990), recently stated that there is a need to study the applicability of career maturity theory to African American and other minority groups.

Work Role Salience and Career Maturity

In the past two decades, the concept of work role salience, first introduced by Masih (1967), has emerged as a major construct in career development theory (Kanungo, 1982). Work salience, defined by Greenhaus (1971) as the perceived importance of work in occupational choice and satisfaction, refers specifically to commitment to the work role relative to other roles (student, parent, leisurite, homemaker, and citizen) in the individual's life. Super contends that the salience attached to roles such as that of work is the product of personal and situational variables and their interaction (Super, 1980, 1990). Work-role salience has been conceptualized generally in the literature as an independent variable impacting on a variety of career issues including career maturity. For example, higher levels of work-role salience has been found to stimulate career exploration not only in college students (Greenhaus & Sklarew, 1981), but also in adults (Sugalski & Greenhaus, 1986). Work-role salience has also been found to influence career maturity in high school students (Super & Nevill, 1984) and in university students (Naidoo, 1993; Nevill & Super, 1988; Stumpf & Lockhardt, 1987). Work salience has also been found to be related to career indecision (Greenhaus & Simon, 1977; Jones & Chenery, 1980), job satisfaction (Klein, 1988), occupational congruency (Greenhaus, 1971; 1973), value satisfaction (Richmond, 1985), and work values (Beutell & Brenner, 1986). Several studies

(Nevill & Super, 1986; Super & Nevill, 1984; Watson & Stead, 1990) have also examined sex, age, and SES as possible determinants of work-role salience. While initial sex difference research in work-role salience upheld the viewpoint that men were socialized to place greater emphasis on the work role (Masih, 1967), later studies seem to refute this. For example, female tertiary students have been found consistently to outperform their male peers in career values (Cooper & Robinson, 1985), general attitudes towards work (Greenhaus, 1973), work exploration (Greenhaus & Sklarew, 1981) and commitment to work (Naidoo, 1993; Nevill & Super, 1988). Mixed results have been obtained with high school students. Farmer (1983) and Nevill and Perrotta (1985) have found adolescent females to have a higher commitment to the work role, whereas Super and Nevill (1984) established adolescent males to be more committed to the work role. Nevill and Perrotta's study, which surveyed adolescent perceptions in Australia, Portugal, and the United States, also found females to be more committed to the home and family role.

Despite expectations to the contrary, SES has generally been shown not to have a significant relationship to career maturity (Nevill & Super, 1988). They suggest that the importance of SES and sex may lie in their influence on commitment to the work role which they consider to be the immediate determinant of career maturity. Although Super (1983) has maintained that career commitment is not highly correlated with SES in adolescence in

general, Krau (1987) found SES played an important role in determining the intensity of Israeli and Arabian adolescents' involvement with work values. Nevill and Perrotta's (1985) study also identified significant cultural differences in work commitment, work participation, and value expectations of work. These and other cross-cultural studies cited in the previous section, add to the increasing recognition that an individual's culture may define work-role salience for its members (Watson & Stead, 1990). Thus the importance individuals attach to the world of work may be influenced by their cultural milieu and by their standing within such a culture (Pine & Innis, 1987) and their perception of the differential treatment of their cultural group in the broader society. Career maturity scores may therefore to a greater extent be a reflection of the individual's readiness to make appropriate career decisions and choices. Hence, the endemic call to examine career constructs, their determinants and interactions within different cultures and race groups (Fouad, 1988; Ponterotto & Casas, 1991; Smith 1975).

Implications for Counseling and Future Research

The career maturity construct has emerged after four decades of research as the most commonly employed outcome measure in career counseling (Spokane, 1991) and the most widely used in the world. Due to the lack of systematic research, the substantial volume of research conducted since the early 1950s has tended to

focus on identifying isolated correlates rather than examine the multidimensional nature of career maturity. Career maturity does appear to be multi-determined, being influenced by several crucial demographic factors. However, the effects of race, culture, sex, and SES on career maturity need to be further unravelled in both emic and etic studies. There are indications that certain career maturity measures are valid among majority groups but not among minority groups. This underscores the importance of using separate ethnic groupings in the analysis and interpretation of scores on attitudinal measures of career maturity (Westbrook & Sanford, 1991) and the continued use of multiple measures of career attributes in cross-cultural and cross-racial studies (Leong, 1991).

Counselors therefore need to be cautious in interpreting career maturity scores. Low career maturity scores may be a reflection of perceived societal barriers, restricted access and to the job market, and limited opportunity and mobility in the job market. Low scores may represent a realistic appraisal of how minority clients perceive job prospects for members of their community. Counseling activities would need to explore the external as well as the internal factors affecting the career development of minority clients. Ability, gender, experience, interests, and goals are important to the career growth of all individuals, although the content and development of these variables may differ as a function of race and culture (Hawks &

Muha, 1991).

Few studies have included multiple determinants in analyzing both the direct and indirect effects of target variables on career maturity. More refined causal models need to be constructed so that theoretical frameworks can be developed to assess the importance of multiple determinants of career maturity. Examining the direct, indirect, and total effects of independent variables on career maturity for different groups will also clarify theoretically meaningful differences that are supported by empirical results. Perhaps then will we arrive at a more systematic and contextual understanding of the career maturity construct.

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